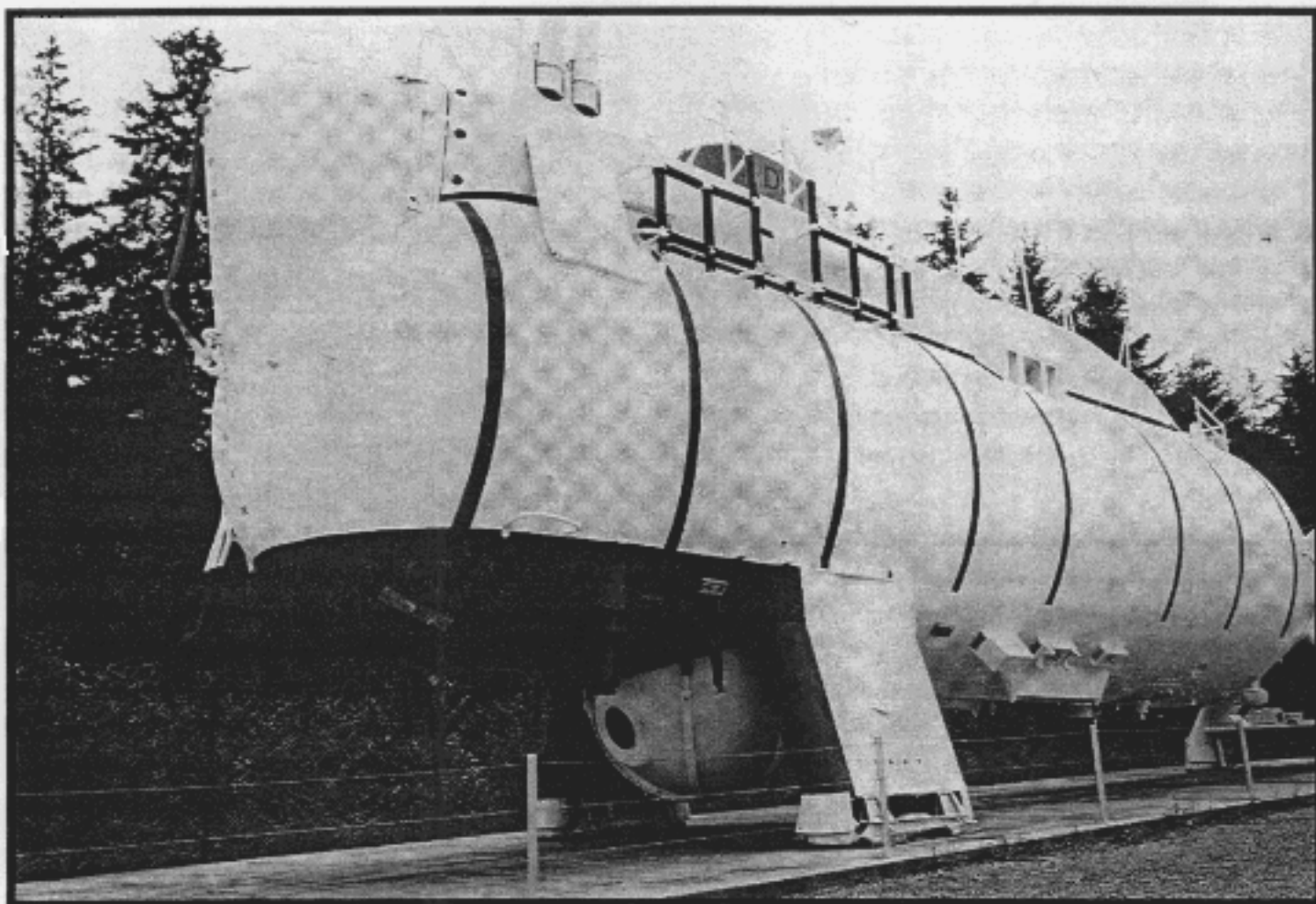


A Teacher's Guide
to the
Naval Undersea Museum
Keyport, Washington



Contents

Description of Exhibits	pages 1-3
Frequently Asked Questions	page 4
Phone, Fax, E-mail	page 5
Making Reservations	page 6



OUTSIDE EXHIBITS

In the parking lot you will see the deep diving submersible research vessels, *Trieste II* and the *Deep Quest*. *Trieste II* completed the study of the wreckage of the lost nuclear submarine *Thresher*. The first *Trieste* made a record breaking dive to a depth of 35,000 feet in 1960.

Deep Quest was built for geological research and also completed several salvage jobs including the recovery in 1969 of the "black box" flight recorders from two airliners that had crashed near Los Angeles.

On your left you will see the sail from the submarine *Sturgeon*. The *Sturgeon*, a nuclear submarine built in 1963, was the first of 37 fast attack (anti-submarine) submarines.

LOBBY

As you enter the lobby you will see *Sub-Human II*, a human powered submarine which set a world speed record in 1992. On your left is the museum store and the information desk where volunteers are available to assist you. Beyond the information desk are the bathrooms, drinking fountain and a public telephone. On the right wall is a large photograph taken from Apollo XVII showing the coast of Africa, Antarctica, and the Indian and Atlantic Oceans. In the far right corner of the lobby you will see the arched grotto which is the entrance to the exhibits.

TIME LINE

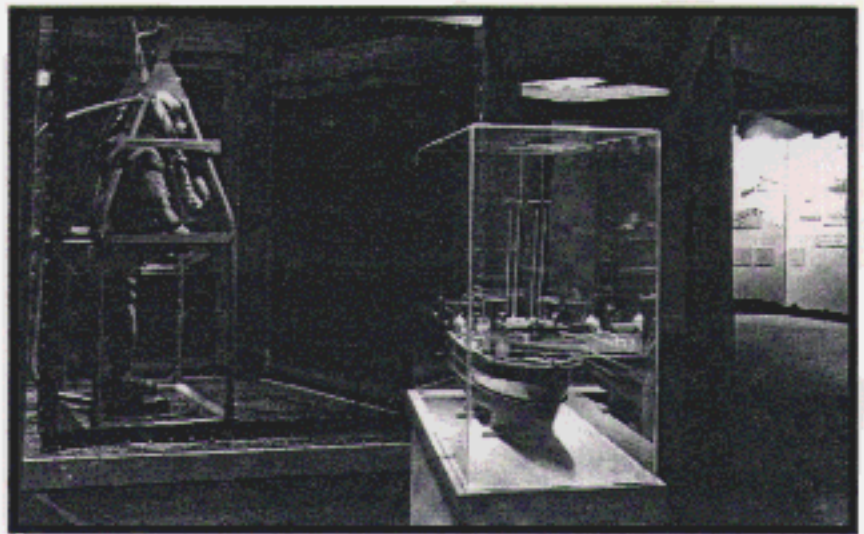
After entering the grotto your students will see on the right an exhibit which shows the evolution of materials used in undersea operations. The opposite wall features a timeline which traces events important to undersea history beginning with the Gilgamesh Epic and continuing to the present.



PIER ROOM

Upon entering the Pier Room the students will see a full size mannequin wearing a complete hard hat diving suit. This is the Mark V design familiar from undersea movies. The Mark V was so successful that the Navy and private industry used it for over 65 years.

This room is used for temporary exhibits. Please contact the education department to find out what will be on display when your group visits.



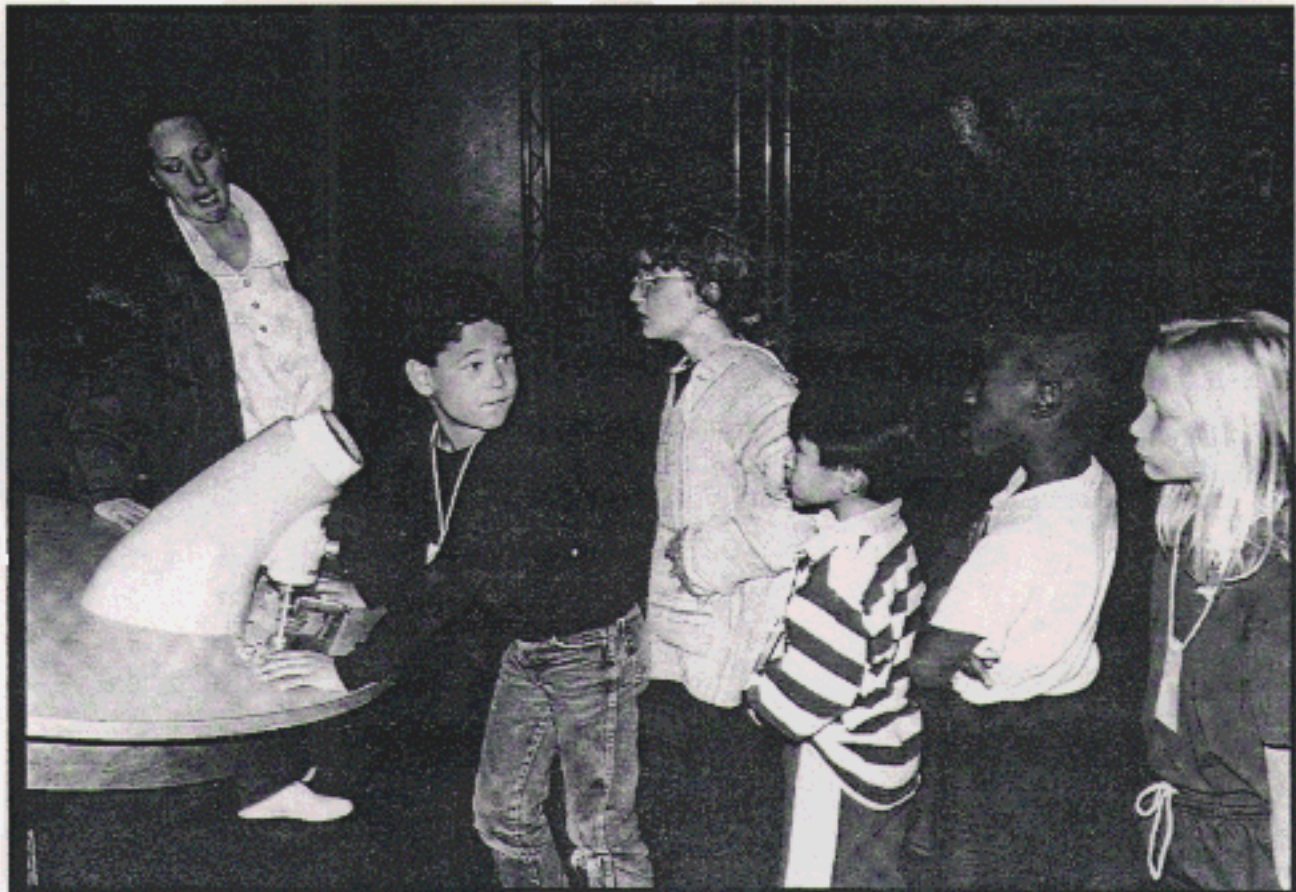
OCEAN ENVIRONMENT

The Ocean Environment introduces students to concepts of physics, chemistry, ecology, and geology. Exhibits focus on topics such as marine biology, the ocean's food web, undersea geology, plate tectonics, and other phenomena such as pressure, temperature, salinity, and sound.

The exhibit includes opportunities

for hands-on investigations of buoyancy, density, and thermal properties. The Ocean Environment includes a microscope which has prepared slides of starfish, diatoms, a sea plume, jellyfish, and grantia. Note that anything that is blue, red or green is part of the prepared slide; anything the students see in black and white is an imperfection on the glass. This can be confusing. The "sounds in the sea" exhibit lets

students hear whales and dolphins, snapping shrimp, sea ice, and an underwater earthquake. The exhibit also includes a video monitor showing tube worms and undersea vents in the Strait of Juan de Fuca.



UNDERSEA WEAPONS

The weapons technology exhibits show the progression of the scientific and technological developments in undersea weapons and the role of undersea weapons in major conflicts.

MINE TECHNOLOGY

Significant artifacts include a reproduction of the spar torpedo from the Civil War, the Revolutionary War keg mine, and an

actual Confederate mine from the battle of Mobile Bay in 1864. On the right students will see mines used in World War I, World War II, and the Vietnam War

TORPEDO TECHNOLOGY

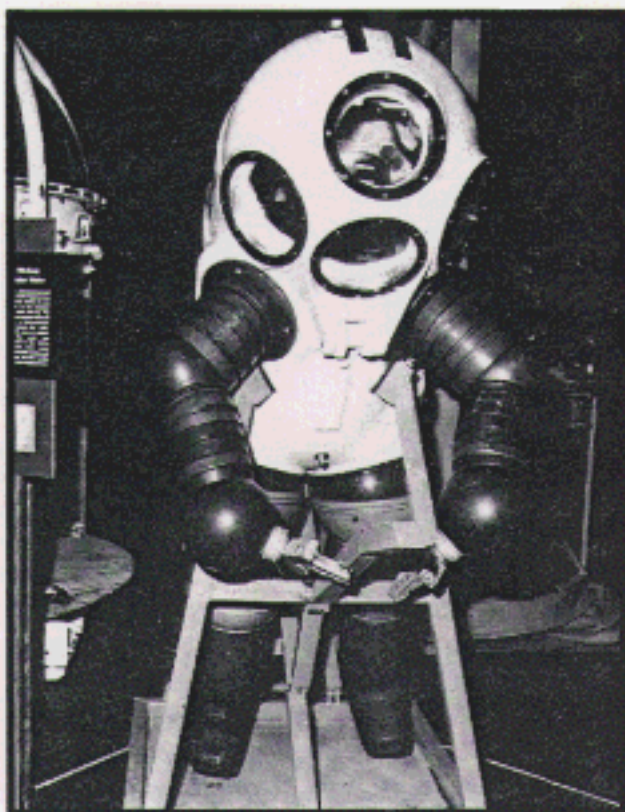
Primary artifacts include the Howell, the Whitehead torpedoes and torpedo tubes from the submarine USS Tecumseh. The

Howell torpedo is the Navy's second oldest (1890). It has no engine but is propelled by stored energy from a 132-pound flywheel. The torpedo exhibit includes a gyroscope demonstration which allows students to test several principles of physics. Students are encouraged to spin the wheels and to then pick them up and turn them.



SUBMARINE TECHNOLOGY

At the rear of the main exhibit hall is a simulation of the control room from USS Greenling (SSN 614). The exhibit includes two periscopes, ship's steering yokes and control equipment, ballast control panel, and weapons control equipment. This exhibit uses actual equipment from USS Greenling to allow visitors to walk inside the reconstructed control room of a recent U. S. submarine.



LARGE ARTIFACT AREA

In the front of the main exhibit hall is a display about the role of submarines in World War II. This exhibit includes a WWII submarine battleflag, torpedo data computer, and a 5-minute video showing submarine operations in the Pacific.

In the right side of the main exhibit hall are many large artifacts including the following: one-person diving systems, a cable controlled underwater recovery vehicle, a swimmer delivery vehicle used in the Vietnam War, and a half-scale mock-up of the deep submergence rescue vehicle used in the movie "Hunt for Red October."

Planning your visit.

Frequently asked questions.

YOUTH GROUP TOURS

Youth group tours are given by our docents and are offered on all days the Museum is open, except for Sunday. Youth group tours can include classroom exercises, scavenger hunts, films, and various special events.



May I bring my class for a field trip?

During the school year, the museum offers field trips with an enrichment activity followed by a focus tour. Each session is limited to 30 students.

Home school groups are welcome too, with a minimum of 10 students and no more than a 2-year age difference between the students.



How Much Does it cost?

Admission and participation in Museum programs are free.



May I bring a pre-school group to the Museum?

The Museum offers several age-appropriate, undersea story times followed by a focus tour of the Museum. Seamore the Seahorse--our resident hand puppet--and his friend Clara the Clownfish are often present at the story times. Pre-schoolers are given a coloring sheet to take home.

Will my group need chaperons?

Youth and school groups must be chaperoned at all times in the Museum. At least one adult must accompany every 10 students. An adult with a baby or small child is not considered a suitable chaperone. Chaperons must accompany groups at all times including during tours, demonstrations, films and while in the Museum Store.

Where can my group eat lunch?

The Museum has no food service facilities. Eating and drinking are

not allowed in exhibit areas, lobby, or most classroom spaces. Picnicking on the lawn outside is suggested for groups bringing their own lunches; there is a nice park in the town of Keyport, not far from the Museum.



What about accessibility?

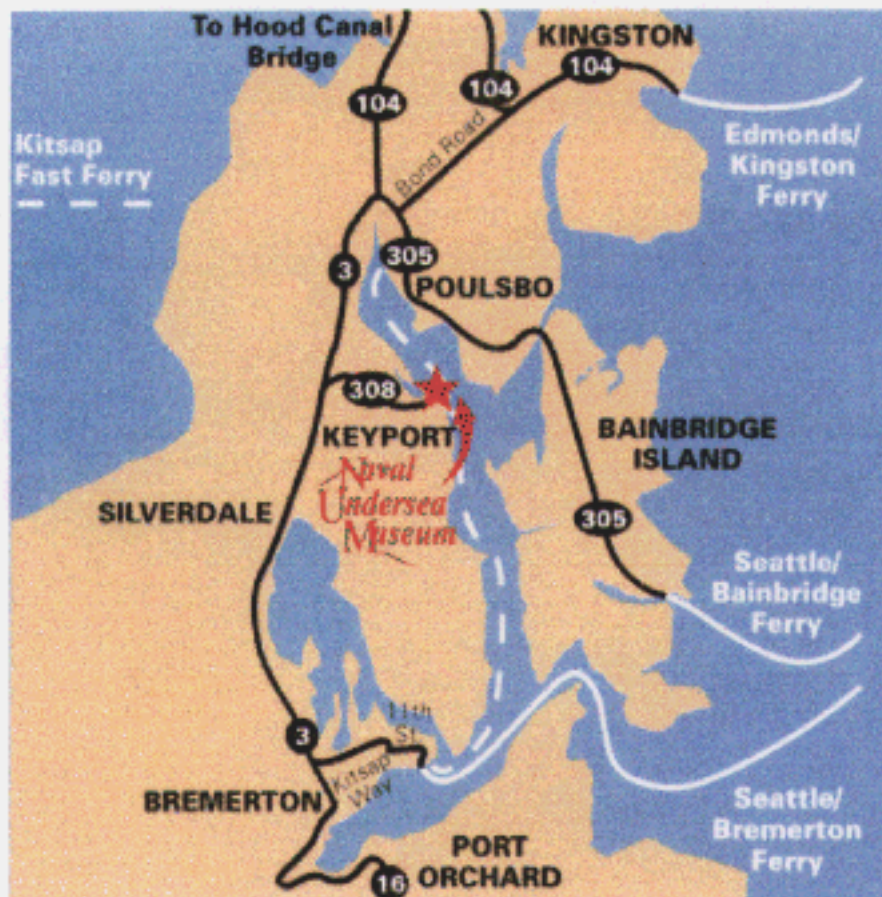
The Museum is wheelchair accessible. Wheelchairs for use in the Museum are free of charge and can be obtained from the information desk. Oral or sign language interpreters are available if requested at least two weeks in advance. Please let us know if someone in your group needs special assistance.



How do I make reservations?

Reservations are made by mail, phone FAX or e-mail. See Page 6.

Directions



From Seattle: via Bainbridge Island Ferry: Follow State Route 305 north to intersection with State Route 3; take Route 3 south to State Route 308; right exit then left on 308 (east) to Keyport.

From Tacoma: Take I-5 to exit 132; then State Route 16 north to Bremerton; at Gorst take state Route 3 north to intersection with State Route 308; then right (east) to Keyport.

From Bremerton: Take Kitsap Way west to intersection with State Route 3; then north to State Route 308; right exit (east) to Keyport.



Naval Undersea Museum
610 Dowell Street
Keyport WA 98345



(360)-396-4148 X201



jjensen@kpt.nuwc.navy.mil



FAX (360) 396-7944

Hours

Summer (June-September)

Daily 10:00 to 4:00

Winter (October-May)

Daily 10:00 to 4:00

Closed Tuesday

Closed: Thanksgiving, Christmas,
and New Years Day.

Naval Undersea Museum

610 Dowell Street

Keyport Washington 98345

360-396-4148 X201

Fax (360) 396-7944

e-mail jjensen @kpt.nuwc.navy.mil

Field Trip Request

Name, address, phone number of School or Organization

Point of Contact for your Group (Name and alternate phone number)

Preferred Date_____Preferred Time_____

Number of Students_____Age/Grade Level_____

Mode of transportation_____

Would you like to focus on a particular area of history, technology, oceanography, or U.S. Naval History? If so please describe.

Phone, fax, e-mail, or mail your request to the address above.